

Amendments to the Claims:

Please amend claims 18 and 24 as follows.

Please cancel claims 19, 20, 51-60, 62, 63 and 65-67 without prejudice.

Please add new claims 71-87 as provided below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 17 (Canceled)

18. (Currently Amended) A method of comparing protein expression in two or more populations of cells, said method comprising:

(a) contacting ~~an array~~ a first microarray comprising ~~uncharacterized~~ antibodies on a solid surface with a cell lysate of a first cell population, generating a first binding pattern;

(b) contacting either the first microarray of antibodies on the solid surface or a duplicate array comprising ~~uncharacterized~~ antibodies on a solid surface with a cell lysate of a second cell population, generating a second binding pattern; and

(c) comparing the first binding pattern with the second binding pattern ~~the binding pattern of the first cell lysate with the binding pattern of the second cell lysate~~ to detect the presence of at least one protein that is differentially expressed in the first cell population with respect to the second cell population.

19. (Canceled)

20. (Canceled)

21. (Previously presented) A method according to claim 18 wherein the first cell lysate is from normal cells and the second cell lysate is from abnormal cells.

22. (Original) A method according to claim 21 wherein the abnormal cells are cancer cells.
23. (Previously presented) A method according to claim 18 wherein the first cell lysate is from normal cells in a resting state and the second cell lysate is from normal cells in a stimulated state.
24. (Currently Amended) A method according to claim 18, wherein antigens of the cell lysate of the first cell population comprises comprise a different detectable label than antigens of the cell lysate of the second cell population.
- 25 to 47. (Canceled)
48. (Previously presented) A method according to claim 18 wherein the first and second cell lysates are from cells from a single tissue type but from different species.
49. (Previously presented) A method according to claim 18 wherein the first and second cell lysates are from cells from a single species but from different tissue types.
50. (Previously presented) A method according to claim 18 wherein the first and second cell lysates are from cells from the same tissue type at different developmental stages.
- 51 to 60. (Canceled)
61. (Previously presented) The method of claim 18, wherein the solid surface comprises a glass slide, a silicon wafer, or a latex bead.
62. (Canceled)
63. (Canceled)
64. (Previously presented) The method of claim 18, wherein at least one spot in the array of antibodies contains about 0.01 ng to 100 ng of antibody.

Claims 65 to 67 (Canceled)

68. (Previously presented) The method of claim 18, wherein the first cell lysate comprises an arterial endothelial cell lysate and the second cell lysate comprises a venous endothelial cell lysate.

69. (Previously presented) The method of claim 18, wherein the first cell lysate or the second cell lysate or both comprises a bacteria lysate, a parasite lysate or a virus lysate.

70. (Previously presented) The method of claim 23, wherein the normal cells are T cells.

71. (New) A method according to claims 18, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of mammalian antigens.

72. (New) A method according to claims 18, wherein the microarray that is contacted comprises 48 different antibody preparations.

73. (New) A method according to claims 72, wherein the microarray that is contacted comprises 90 different antibody preparations.

74. (New) A method according to claims 72, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of human antigens.

75. (New) A method according to claims 74, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of 1000 human antigens.

76. (New) A method according to claims 18, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of proteins expressed in a cell type.

77. (New) A method according to claims 75, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of proteins expressed in T cells.

78. (New) A method according to claims 76, wherein the microarray that is contacted comprises 90 different antibody preparations.

79. (New) A method according to claims 76, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of 1000 human antigens.

80. (New) A method according to claims 73, wherein the microarray that is contacted comprises a collection of antibodies that recognize a first set of antigens that are differentially expressed in a first disorder and a second set of antigens that are differentially expressed in a second disorder.

81. (New) A method according to claims 80, wherein the microarray that is contacted comprises 90 different antibody preparations.

82. (New) A method according to claims 80, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of 1000 human antigens.

83. (New) A method according to claim 24, wherein the antibodies on the microarray are contacted by antigens of the cell lysate of the first cell population and then by antigens of the cell lysate of the second cell population.

84. (New) A method according to claims 18, wherein the microarray that is contacted comprises a collection of antibodies that recognize a set of proteins of a pathogen.

85. (New) A method according to claims 18, wherein the microarray that is contacted comprises 200 discrete locations per square centimeter.

86. (New) A method according to claims 18, wherein the microarray that is contacted comprises antibodies with unknown specificity.

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87. (New) A method according to claim 18, wherein the first microarray is contacted by a mixture comprising both the cell lysate of the first cell population and the cell lysate of the second population.